

IN THE CLAIMS

1-11 (canceled)

12. (previously presented) A substrate having a Fabry-Perot filter applied comprising at least three layers, including a first reflecting layer and a second reflecting layer with mutually facing reflecting surfaces of the filter spaced apart by a gap of thickness d and enclosing a light-transmissible intermediate layer located in the gap, wherein the first and second reflecting layers comprise a base material which is the same in each of said first and second reflecting layers, and the intermediate layer comprises a chemical compound of the base material and a further material.

13. (previously presented) The substrate as claimed in claim 12, wherein the base material is a metal and the further material oxygen, such that the first and second reflecting layers comprise a metal and the intermediate layer comprises a metal oxide in stoichiometric or nonstoichiometric composition.

14. (previously presented) The substrate as claimed in claim 12, wherein the metal is aluminum and the intermediate layer comprises aluminum oxide.

15. (previously presented) The substrate as claimed in claim 12, wherein the base material is a metal and the further material nitrogen, such that the reflecting layers comprise a metal and the intermediate layer comprises a metal-nitrogen compound in stoichiometric or nonstoichiometric composition.

16. (previously presented) The substrate as claimed in claim 15, wherein the metal is aluminum and the intermediate layer is therewith comprised of an aluminum nitride.

17. (previously presented) A substrate as claimed in claim 12, wherein the first reflecting layer adjoins the substrate and is opaque to light and the outer second reflecting layer is partially transmissible to light.

18. (previously presented) A substrate as claimed in claim 17, wherein the first reflecting layer adjoins the substrate and has a thickness between 10 and 200 nm, the

second reflecting layer between 1 and 20 nm and the intermediate layer has a thickness between 50 and 2000 nm.

19. (withdrawn) A method for the application of a filter on a substrate comprising:

providing a vacuum coating facility with a vaporization device in an evacuatable vacuum chamber and a material supply device,

charging the vaporization device with the base material,

closing the vacuum chamber and generating a vacuum therein,

vaporizing the base material exclusively such that it is deposited as a first layer on a substrate,

vaporizing the base material with the simultaneous introduction of the further material into the vacuum chamber such that the substrate provided with the first layer is reactively vapor deposited with an intermediate layer of the base material and the further material,

vaporizing the base material exclusively such that it is deposited on the intermediate layer to form a second reflecting layer,

opening the coating chamber and removing the coated substrate.

20. (withdrawn) A method as claimed in claim 19, wherein the material supply device is a gas connection.

21. (withdrawn) A method as claimed in claim 19, wherein the substrate to be coated is a web sheeting which is unwound via a coating cylinder located above the vaporization device.

22. (withdrawn) A method as claimed in claim 21, wherein the vacuum chamber includes two stock rolls, the web for the vapor deposition of the discrete layers alternately wound from the one stock roll and wound onto the particular other.

23. (canceled)

24. (previously presented) A method for preparing the substrate of claim 12 comprising the steps of:

providing a vacuum coating facility with a vaporization device in an evacuatble vacuum chamber and a material supply device;

charging said vaporization device with said base material;

closing said vacuum chamber and generating a vacuum therein;

vaporizing said base material exclusively such that said base material is deposited as said first layer on said substrate;

vaporizing said base material with simultaneous introduction of said further material into said vacuum chamber such that said substrate provided with said first layer is reactively vapor deposited with said intermediate layer of said base material and said further material;

vaporizing said base material exclusively such that said base material is deposited on said intermediate layer to form said second reflecting layer; and opening said vacuum chamber and removing said coated substrate.